

VUSHKO, V.P.; LISEVICH, L.N. [Lisevych, L.M.]; PARASYUK, L.S.

Solution of a mixed problem for an elliptic differential equation  
degenerating on the boundary of the region. Dep. AN URSR no.6:690-  
691 '65. (MIRA 18:7)

1. Lvovskiy poligraficheskiy Institut.

Subject : USSR/Engineering AID P - 352  
Card : 1/1  
Author : Lisevitskiy, P. B., Engineer  
Title : Placing of concrete for foundation work from scaffold bridges  
Periodical : Sbor. mat. o nov. tekhn. v stroi., #4, 7-10, 1954  
Abstract : As reported from Zaryad'ye (Moscow), the placing of concrete for a two-story foundation of a large building was executed from scaffold bridges making the work speedier and more efficient. Building machines were used. 6 graphs.  
Institution : None  
Submitted : No date

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

LISEVITSKIY, P.B., inzhener.

Experience in filling in under metal foundation plates. Stroi.  
(MLRA 7:5)  
prom. 32 no. 3:14-16 Mr '54.  
(Foundations) (Concrete construction)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

LISEWSKI, R.

B-9

POLAND / Physical Chemistry. Kinetics. Combustion.  
Explosions. Topochemistry. Catalysis.

Abs Jour: Ref Zhur-Khimiya, No 10, 1959, 34275

Author : Swinarski A., Siedlewski J., Lisewski R.

Inst : Not given

Title : Investigation of Catalyst Structure and of the  
Reaction Mechanism Involving Oxidation of H<sub>2</sub>S to  
Sulfur on the Activated Carbon.

Orig Pub: Gas, woda i techn. sanit., 1958, 32, No 8, 300-302

Abstract: By employing dynamic and static methods, addition  
of C<sub>2</sub>H<sub>5</sub>NH<sub>2</sub> (I) and HCl (gas) to reaction mixtures  
was investigated together with the effect of im-  
pregnating activated carbon (AC) with 0.5 n HCl --  
used as a catalyst for the oxidation of H<sub>2</sub>S to  
elementary S employing O<sub>2</sub> in a stream of CO<sub>2</sub> at

Card 1/3

12

POLAND / Physical Chemistry. Kinetics. Combustion.  
Explosions. Topochemistry. Catalysis.

B-9

Abs Jour: Ref Zhur-Khimiya, No 10, 1959, 34275

Abstract:  $^{180}\text{Ac}$ . It has been demonstrated that activity of  $\text{AC}^2$  increases with the addition of I to the mixture of  $\text{H}_2\text{S} + \text{O}_2$  and goes through the maximum (increase of 43% in the volume of  $\text{O}_2$  used) at 6 vol % I based on the volume of  $\text{O}_2$  used. After treatment with 0.5 n  $\text{HCl}$ , activity of  $\text{AC}$  decreases. Additions of  $\text{HCl}$  (to the reaction mixture as a gas) leads to further decline of activity of  $\text{AC}$ . In the opinion of authors, oxidation of  $\text{S}^{2-}$  or  $\text{HS}^-$  takes place on the surface of  $\text{AC}$  in accordance with the following reaction mechanism:  $\text{S}^{2-} + 2\text{H}^+ + 0.5\text{O}_2 = \text{S} + \text{H}_2\text{O} + \text{Q}$ , where  $\text{Q}$  is the thermal effect of the reaction. Ionization of  $\text{H}_2\text{S}$  on  $\text{AC}$  is promoted by the presence of hydrated oxides of carbon, present on the surface, which are basic in nature. Addition of I

Card 2/3

POLAND / Physical Chemistry. Kinetics. Combustions.  
Explosions. Topochemistry. Catalysis.

B-9

Abs Jour: Ref Zhur-Khimiya, No 10, 1959, 34275

Abstract: intensifies the ionization of H<sub>2</sub>S molecules. The activity decline of AC occurring in the treatment with HCl (acid) is explained by the replacement of the surface hydroxides by inactive chlorine ions. -- O. Polotnyuk

Card 3/3

13

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

LISEWSKI, Zdzislaw, mgr. inz.

Sounds for gas turbine measurements. Inst lotn prace no.19:  
60-71 '63.

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

ACC NR: AP6029403

SOURCE CODE: P0/0102/66/000/005/0013/0019

AUTHOR: Lisewski, Zdzislaw (Master engineer)

ORG: none

TITLE: Use of lemniscate intake openings for delivery measurements

SOURCE: Technika lotnicza i astronautyczna, no. 5, 1966, 13-19

TOPIC TAGS: rotary machine, turbine, compressor, flow measurement

ABSTRACT: The article deals with the measurement of the air delivery rate of rotary machines (compressors and turbines). The difficulties encountered in the conduct of such measurements with reducing pipes, diminishers, Venturi tubes and apparatus of that general type are briefly reviewed, and a test and measurement method based on the use of intake apertures of lemniscate configuration is proposed and theoretically and experimentally substantiated. The intake calibration factors for typical axial compressors are derived and the technique used in the measurement of pressure and the derivation of intake calibration factors is described. A number of schematic diagrams illustrating the use of the intake apertures for air delivery measurement are presented, pressure distribution charts are analyzed, and an estimate is made of the delivery rate on the basis of wind tunnel tests employing the methodology proposed. Statements of expectable test accuracy with the lemniscate intake procedure and with respect to the general area of applicability of the method are included. The method

UDC: 681.121.7:621.43-41

Card 1/2

ACC NR: AP6029403

is particularly well suited to the testing and analysis of various kinds of aircraft rotary machines. Orig. art. has: 18 formulas, 4 tables, and 5 figures.

SUB CODE: 13, 14/ SUBM DATE: none/ ORIG REF: 004/ SOV REF: 004/ OTH REF: 002

Card 2/2

86002

24,7900 (1035,1144,1180)

S/141/60/003/003/020/021/XX  
E073/E335

AUTHOR: Liseyenko, A.S.

TITLE: Paramagnetic Resonance in LacmoidPERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,  
Radiofizika, 1960, Vol. 3, No. 3, pp. 537 - 538

TEXT: For observing and studying the spectra a super-heterodyne spectroscope was used and for measuring the magnetic field a proton measuring device was used. The specimen was in the form of a crystalline powder weighing 0.05 g. The investigations were carried out at room temperature at 9 260 Mc/s. A single line was found to exist with a g-factor equalling 2.0036, which is very near to the g-factor of the free electron. Calculation of the ratio of the fourth and second moments of the lines showed that an appreciable exchange interaction exists (1.56). To determine the delocalisation of the unpaired electron, attempts were made to resolve the superfine structure. However, investigations carried out in aqueous and alcohol solutions of lacmoid with various concentrations did not produce the desired results. Assuming that the spectrum

Card 1/3

66902  
S/141/60/003/003/020/021/XX  
E073/E335

✓

### Paramagnetic Resonance in Lacmoid

is due to destroyed chemical bonds of the carbon atoms, the temperature dependence of the absorption was recorded. For natural and artificial carbons such work was carried out by Ingram et al (Ref. 1), who showed that on increasing the temperature, the absorption increases, reaching a maximum, and then drops. For carbons the maximum absorption was found to be at 550 °C; they attribute this to the fact that at this temperature a large quantity of hydrogen is generated and many unsaturated bonds remain. On further increase in the temperature the aromatic rings become more mobile and this leads to joining of the side bonds with neighbouring rings; the absorption drops. Fig. 1 shows the curve of the concentration of free radicals  $N$  as a function of the lacmoid temperature  $T$ . It can be seen from the curve that the maximum absorption is observed at 530 °C; within the limits of sensitivity of the spectroscope the signal ceased completely at 730 °C. Thus, the temperature at which maximum absorption is observed is almost the same for carbon and for lacmoid.

Card 2/3

36002

S/141/60/003/003/020/021/XX  
E073/E335

Paramagnetic Resonance in Lacmoid

There are 1 figure and 1 English reference.

ASSOCIATION: Khar'kovskiy pedagogicheskiy institut  
imeni G.S. Skovorody  
(Khar'kov Pedagogical Institute imeni  
G.S. Skovoroda)

SUBMITTED: February 15, 1960

✓

Card 3/3

Liseyenko, I.I.

130-3-4/21

AUTHORS: Ginzburg, B. I., Vulykh, A.K., Liseyenko, I.I. and  
Klimenko, D. G.

TITLE: Mechanical Gland sealing of a hot-blast stove burner.  
(Mekhanicheskoye sal'nikovoye uplotneniye gorelki  
vozdukhonagrevatelya).

PERIODICAL: Metallurg, 1958, No.3, pp. 7-10 (USSR).

ABSTRACT: The authors describe how at the imeni Petrovskiy  
(imeni Petrovskogo) works, where lack of space prevents  
the use of standard isolating devices for the Copper  
stoves, a mechanically clamped seal with interchangeable  
connecting pipe and lid was developed and introduced.  
The arrangement is moved with a monorail and the joint  
is liberally greased. At the end of the "on gas"  
period the connecting pipe is moved back and the lid  
is bolted on.  
There are 3 figures.

ASSOCIATION: Petrovskiy Works. (Zavod im. Petrovskogo).

AVAILABLE: Library of Congress.

Card 1/1

LISEYEV, A.S.

47-58-2-10/30

AUTHORS: Kramar, V.Ya. (4th Secondary School, Konotop, Sumskaya Oblast')  
Liseyev, A.S. (538 th Secondary School, Moscow); Timokhov, I. F.  
(9th Secondary School, Zaporozh'ye)

TITLE: On the Contents of a Physics Course in Connection With  
Questions of Polytechnical Instruction (O soderzhanii kursa  
fiziki v svyazi s voprosami politekhnicheskogo obucheniya)

PERIODICAL: Fizika v Shkole, 1958, Nr 2, pp 56-57 (USSR)

ABSTRACT: Different opinions are expressed by the above mentioned authors  
on aspects of teaching physics. V.Ya. Kramar says that the se-  
paration of practical works on electro-engineering from physics,  
into an independent course is wrong. A.S. Liseyev writes that  
the teaching of physics in the VI and VII classes should be  
de-emphasized, and the number of hours of teaching physics in  
the VIII class should be increased. I.F. Timokhov complains of  
the lack of uniform teaching methods in this subject.

AVAILABLE: Library of Congress

Card 1/1 1. Physics-Study and teaching

L 44685-66 EWP(d)/EWP(k)/EWP(h)/EWP(v)/EWP(1) BC

ACU NR: AP6005376

(N) SOURCE CODE: UR/0413/66/000/001/0121/0121

54

B

AUTHORS: Khomakov, A. N.; Liseyenko, Yu. I.

ORG: none

TITLE: Two-stage pressure reducer. Class 47, No. 177723

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 121

TOPIC TAGS: pressure regulator, pressure valve, pneumatic device, pneumatic control, pneumatic drive

ABSTRACT: This Author Certificate presents a two-stage pressure reducer. A measuring valve, an adjustable spring, and a piston are built into its body. The piston is connected to the adjusting screw of the spring and moves under the influence of the air present in the main conduit. To provide for an automatic remote control switching of the exhaust pressure from one setting to another, the mechanism is provided with a pneumatic drive operating the piston. (see Fig. 1).

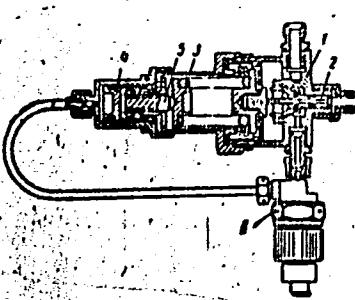
Card 1/2

UDC: 621.646.4--85

L 44685-66

ACC NR: AP6005376

Fig. 1. 1 - casing; 2 - measuring valve;  
3 - spring; 4 - piston; 5 - adjusting  
screw; 6 - pneumatic drive



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 12Dec63

hs

Card 2/2

LISEYEV, A.S.

Trees as the chroniclers of climate. Biol. v shkole no.4:81-82  
Jl-Ag '61. (MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lesovedstva i  
mekhanizatsii lesnogo khozyaystva.  
(Tree rings)

BLEYKHER, Izrail' Gavrilovich, inzh.; LISEYEV, Vasiliy Pavlovich, inzh.:

Prinimali uchastiye: KHOUMETETSKIY, A.Ye., inzh.; SPITKOVSKIY,  
L.N., inzh.. BELEVITIN, A.I., inzh., retsenzent; CHISCHENKO,  
N.P., inzh., red.:

[Compressor units] Kompressornye stantsii. Moskva, Gos.nauchno-  
tekhn.ind-vo mashinostroit.lit-ry, 1959. 323 p. (MIRA 13:4)  
(Air compressors)

RAKOVITSAN, Aleksandr Petrovich, kand.tekhn.nauk, dots.; SAFRONEYEV,  
Vladimir Borisovich, inzh.; LISEYEV, Vasiliy Pavlovich, dots.;  
GONCHAR, A.S., red.; LEBEDEVA, L.A., tekhn. red.

[Design of reinforced-concrete engineering structures] Pro-  
ektirovanie zhelezobetonykh inzhenernykh sooruzhenii. Kiev,  
Gosstroiizdat USSR, 1962. 366 p. (MIRA 15:7)

(Reinforced concrete construction)  
(Hydraulic structures)

KRECHETOVA, I. (Kurgan); IGNATENKO, N. (Belgorod); LISGOTIN, V.;  
ZEVAKHIN, A., inzh. po tekhnike bezopasnosti

Editor's mail. Okhr. truda i sots. strakh. 6 no. 3:22 Mr '63.  
(MIRA 16t4)

1. Derevobrabatyvayushchiy zavod tresta "Stroydetal'-70"  
(for Zevakhin).

(Industrial hygiene)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

VAKSMAN, Yefim Natanovich [Vaksman, IU.N.]; LISHAK, Feliks Ionifovich  
[Lyshak, F.I.]; KOCHERGA, M., red.; PATSALYUK, P., tekhn.red.

[Economist's handbook] Dovidnyk hospodarnyka. Kyiv, Derzh.  
vyd-vo tekhn. lit-ry URSR, 1958. 388 p. (MIRA 12:1)  
(Economics)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

LISHAK, I.

From practices in the adjustment of deaerator systems. Sakh. prom.  
37 no.3:33-37 Mr '63. (MIRA 16:4)

1. Upravleniye "Kiyevenergonaladka".  
(Sugar industry--Equipment and supplies)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

LISHAK, I.I., inzh.

Using the heat from continuous scavenging of boilers. Energetik  
8 no.5:13 My '60. (MIRA 13:8)  
(Boilers) (Waste heat)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

LISHAK, I.I.

Jet interceptors in the filters of a chemical feed water  
purification system. Energ.i elektrotekh.prom, no.4:63-64  
O-D '62; (MIRA 16:2)

1. Kiyevenergonaladka.  
(Feed-water purification)

LISHAK, K.

New experimental aspects in investigating diencephalic mechanisms  
and processes of higher nervous activity. Zhur. vys. nerv. deiat.  
5 no.5:636-643 S-0 '55. (MIRA 9:1)

1. Institut fisiologii meditsinskogo universiteta, Pech, Vengriya.  
(Diencephalon, physiology,  
higher nervous funct)  
(CENTRAL NERVOUS SYSTEM, physiology,  
higher nervous funct., diencephalic aspects)

TELEGDI, D. [Telegdy, G.]; ENDRETSI, Ye.[Endroczi, E.]; LISHAK, K. [Lisak, K.]

Progesterone secretion by the ovary during various stages of pregnancy  
and lactation. Probl. endok. i gorm. 10 no.1:103-106 Ja-F '64.  
(MIRA 17:10)

1. Institut fiziologii Meditsinskiy universitet, Pech, Vengriya.

... 66.0) Distance from :  
to nearest  
Major road 1950  
existing roads  
vegetation and trees  
image of a power  
line. This is a  
fixed position, changing 0.10  
and as a result of orientation  
of the electrical circuit.

Lishak, K.

Effect of rhythmic stimulation of the heart and PV stimulation of the heart. After complete cessation of the heart, a series of application of this conditioned signal and stimulation of heart, ends forth the cond. refl. Combination of these stimuli leads to a marked shortening of the latent period of the cond. refl. The processes of excitation in the heart carry a dominant character, thanks to which the activity of the heart is other than that of the skeletal muscle. The rate of contraction of the heart is determined by the frequency of the rhythmic stimulation of the heart. The frequency of the rhythmic stimulation of the heart must be such that inhibition of the heart does not occur. (Russian)

Breakage of a cond. refl. must arise in the region of the heart. (Russian)

F. N. Lishak

LISHSHAK, K.

AUTHOR: Kal'man Lishshak, Academician 26-58-7-5/48

TITLE: Progress on Lines Initiated by Pavlov (Po puti pavlovskikh issledovaniy)

PERIODICAL: Priroda, 1958, Nr 7, pp 33-40 (USSR)

ABSTRACT: The Hungarian author briefly sketches Pavlov's idea on conditioned reflexes and points out the fact that this idea has become more and more universally accepted due to the progress of insights based on the concepts of the materialistic doctrine, as well as improved research methods that confirm F. Pavlov's assertions. Foreign research along Pavlov's lines is outlined. The Institute of Physiology of the Medical University of Peu in Hungary has confirmed foreign research of 1954, that the electric activity of the Ammon's horn is contrary to that of the neocortex in the excited state. Further research was devoted to impulses counter-acting the conditioned reflexes simultaneously. It is hoped that clues explaining pathologic behavior will be found.  
There are 2 photos, 2 graphs and 1 Soviet reference.

Card 1/2

Progress on Lines Initiated by Pavlov

26-58-7-5/48

ASSOCIATION: Institut fiziologii meditsinskogo universiteta Peu - Ven-griya (The Institute of Physiology of the Medical University of Peu - Hungary)

1. Physics--USSR

Card 2/2

LISHAK, M., otv. za vypusk; POCHEKINA, L., tekhn. red.

[Corn grower's library] Bibliotekha kukurudzovoda. Kyiv,  
Kyivs'ke oblasne knyzhkovo-gazetne vyd-vb, 1961. i pamphlets.  
(MIRA 15:3)

(Ukraine—Corn (Maize))

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

LISHAK, M.G.

Metabelian and weakly metabelian groups; idealizing condition.  
Vest. AN Kazakh. SSR 20 no.10:75-79 O '64. (MIRA 17:11)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

LISHAK, V.A.

Metal and brass adapters. Zav.lab.21 no.6:739-740 '55.  
(MIRA 8:9)  
(X rays--Apparatus and supplies) (Cast iron--Metallography)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

LISHAK, V.I.

Determining the pressure on elements of large-panel buildings  
caused by uneven settling of the foundation bed. Osn., fund. i  
mekh. grun. 7 no.5:23-25 '65. (MIRA 18:10)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

KOSITSYN, B.A.; LISHAK, V.I.; SERGEYEV, D.D.

Responses to P.P.Shagin's article "The problem of settling joints  
in frameless apartment houses on irregularly compressed and  
sagging foundations." Osn., fund. i mekh.grun. 6 no.2:23-26  
'64. (MIRA 17:4)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

TIBENSKA, Marta; LISHAKOVA, Erna; BUNTOVA, Ema; BARICA, Stefan

Metabolism of amino acids during the formation of vitamin H12  
by a strain of *Actinomyces olivaceus*. Biologia 18 no.12:  
928-936 '63.

1. Zentrales Forschungsinstitut fur die Nahrungsmittelindustrie,  
Zweigstelle in Bratislava.

\*

LISHANIN, P.Ye.

Results of the complete processing of potatoes into starch  
and alcohol in Ryazan Province. Sakh. prom. 35 no.8:63-65  
(MIRA 14:8)  
Ag '61.

1. Ryazanskiy sownarkhoz.  
(Ryazan Province--Starch)  
(Ryazan Province--Distilling industries)

MEDVEDEV, A.S.; LISCHANINA, N.Ye.; LEBEDEVA, A.I.

Clinical and epidemiological characteristics of diphtheria  
in Ashkhabad. Zirav. Turk. 8 no.2:24-26 F'64  
(MIRA 17:4)

1. Iz kafedry infektsionnykh bolezney (zav. - dotsent A.S.  
Medvedev) Turkmen'skogo gosudarstvennogo meditsinskogo insti-  
tuta i Ashkhabadskoy gorodskoy infektsionnoy bol'nitsy No.1  
(glavnyy vrach A.I.Lebedeva).

ACCESSION NR: AP4031872

S/0286/64/000/007/0065/0065

AUTHOR: Repolovskiy, S. V.; Chudaykin, A. V.; Kazachevskaya, T. V.; Lishanov,  
A. Ya.; Medvedev, V. S.

TITLE: A method of measuring the energy of shortwave radiation from the sun as  
well as that of artificial sources in the region of the spectrum below 1350A.  
Class 42, No. 161506

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1964, 65

TOPIC TAGS: radiation detector, solar radiation detector, shortwave radiation  
energy, light filter, shortwave radiation detector, ultraviolet radiation detector

TRANSLATION: 1. The method proposed in this author's certificate for measuring  
the shortwave radiation energy of the sun or of an artificial source at wave-  
lengths shorter than 1350A involves the use of rockets, satellites, and space  
craft. In order to obtain data immediately upon measurement of radiation, a  
previously irradiated plate coated with  $\text{CaSO}_4(\text{Mn})$  is moved into position  
behind the window of the light detector, the plate is heated, and the readings

Card 1/2

ACCESSION NR: AP4031872

of the light receiver are transmitted to earth.

2. The method described in 1, with the added feature whereby the same plate can be used many times. Upon conclusion of data-taking, the plate is moved away from the field of view of the light receiver, the plate is cooled, and then it is returned to the window.

3. The method described in 1 and 2 with the added feature whereby radiation in different regions of the spectrum can be measured. This is realized by moving filters, having the desired relationship between their transmission coefficients and wavelength to be measured, into position behind the radiation window.

ASSOCIATION: none

SUBMITTED: 13Jul62

DATE ACQ: 29Apr64

ENCL: 00

SUB CODE: SD, SP

NO REF Sov: 000

OTHER: 000

Card 2/2

S/048/62/026/007/006/030  
B104/B138

AUTHOR: Lishanskiy, G. Ya.

TITLE: Light source for electronically controlled emission  
spectral analysis

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,  
v. 26, no. 7; 1962, 865-866

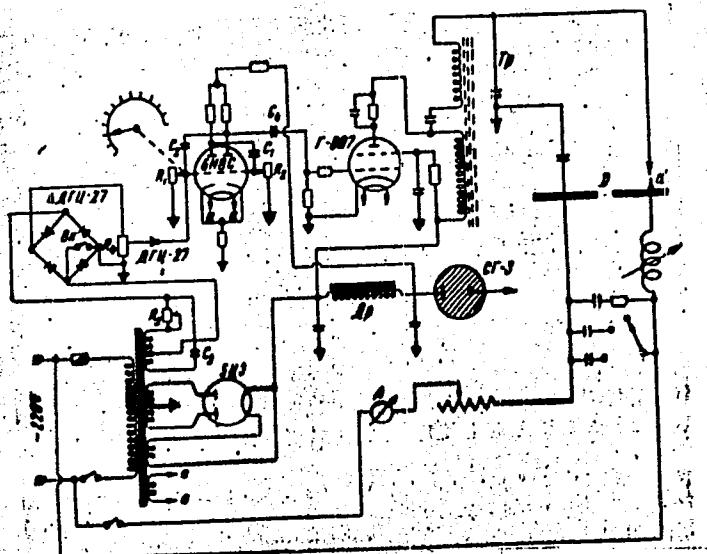
TEXT: A simplified electronically controlled arc and low-voltage spark generator was developed by the spectral laboratory of the "Elektrosvigatel'" plant at Mogilev. (Fig.). With the new generator concentrations of Si from 0.05-0.07%, carbon from 0.1%, phosphorus from 0.02%, and sulfur from 0.1% can be determined on a steeloscope. The generator consists of two main units: the ignition spark source, and the low-voltage supply for the discharge. It operates both as spark and arc generator. Lower impurity contents are determined with spark discharges. There are 1 figure and 1 table.

Card 1/2

## Light source for electronically ...

S/048/62/026/007/006/030  
B104/B138

Fig. Schematic diagram of generator. Legend: (D) Analysis gap  
(d) adjustable gap.



Card 2/2

FIGS.

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

LISHANSKIY, G. YA

110

## PHASE I BOOK EXPLOITATION

SOV/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960.  
Materialy (Materials of the Third Ural Conference on Spectroscopy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR. Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTO.

Eds. (Title page): G. P. Skornyakov, A. B. Shayevich, and S. G. Bogomolov; Ed.: Gennadiy Pavlovich Skornyakov; Ed. of Publishing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

PURPOSE: The book, a collection of articles, is intended for staff members of spectral analysis laboratories in industry and scientific research organizations, as well as for students of related disciplines and for technologists utilizing analytical results.

Card 1/15

100

## Materials of the Third Ural Conference (Cont.)

SOV/6181

COVERAGE: The collection presents theoretical and practical problems of the application of atomic and molecular spectral analysis in controlling the chemical composition of various materials in ferrous and nonferrous metallurgy, geology, chemical industry, and medicine. The authors express their thanks to G. V. Chentsova for help in preparing the materials for the press. References follow the individual articles.

## TABLE OF CONTENTS:

Foreword

3

## PART I

Sherstkov, Yu. A., and L. P. Maksimovskiy. Investigation of the dependence of the total intensity of spectral lines on the concentration of elements in an arc-discharge plasma 4

Card 2/15

## Materials of the Third Ural Conference (Cont.)

SOV/6181

- Kozhevnikova, L. A., and A. M. Shavrin. Dependence of the relative intensity of chromium lines on chromium concentration in standards with a ferric oxide base 134
- Puzanova, K. P. Spectral determination of strontium in some minerals 135
- Borzov, B. P. Selection of conditions of arc-discharge in solving some spectral-analytical problems 136
- Korotkov, V. F. Universal low-voltage generator with electronic control 138
- Lishanskiy, G. Ya. Automatic device for photographing spectra 142

Card 11/15

LISHANSKIY, G.Ya.

Light source for emission spectrum analysis with electronic  
control. Izv. AN SSSR. Ser. fiz. 26 no.7:865-866 Jl '62.  
(MIRA 15:8)  
(Spectrum analysis) (Automatic control)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

LISHANSKIY, I.M.

Devices for repairing. Mashinostroitel' no. 5:16-17 My '63.  
(MIRA 16:7)  
(Machine-shop practice)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

KAGANOVICH, Z.I.; LYALIN, D. V.; LISHANSKIY, I. M.

Engrs.

The Lubrication of the Stamping Hammers

Vest Mash p. 30, Sep 51

LIDTAN DAIY, I.A.

ABRAMOVICH, I.I., prof., ANBINDER, A.G., inzh., ANTOSHIN, Ye.V., inzh., ARKHANGEL'SKIY, L.A., inzh., ASTAF'YEV, S.S., kand. tekhn. nauk, AFANAS'YEV, L.A., inzh., BARGSHTEIN, I.I., inzh., BORISOV, Yu. S., inzh., red., BYALYY, I.L., inzh., VETVITSKIY, A.M., inzh., GERSHMAN, D.Kh., inzh., GINZBURG, Z.M., inzh., GOROSHKIN, A.K., inzh., YEVDOKIMCHIK, Kh.I., inzh., ZHIKH, V.A., kand. tekhn. nauk, ZABYVAYEV, Ye. I., kand. tekhn. nauk, [deceased], ZOBIN, V.S., inzh., IVANOV, G.P., kand. tekhn. nauk, KAPRANOV, P.N., inzh., KONDRAUTOVICH, V.M., inzh., KOSTREV, S.K., inzh., KOVAL'SKIY, N.N., inzh., KRUGLYAK, I.A., inzh., LUKYANOV, T.P., inzh., LAPIDUS, A.S., kand. tekhn. nauk, LIVSHITS, G.A., kand. tekhn. nauk, LISHANSKIY, I.M., inzh., MIGALINA, Ye.Ya., inzh., MOSKIN, R.A., kand. tekhn. nauk; PRONIKOV, A.S., doktor tekhn. nauk, REGIRER, Z.L., kand. tekhn. nauk, RUDYK, M.A., inzh., SOKOLOVA, N.V., inzh., SAKLINSKIY, V.V., inzh., SAKHAROV, V.P., inzh., TOKAR', M.KH., inzh., TKACHEVSKIY, G.I., inzh., KHRUNICHEV, Yu.A., kand. tekhn. nauk, TSOPIN, K.G., inzh., red.; SHEYNGOL'D, Ye. M., inzh., SOKOLOVA, T.F., tekhn. red.

[Handbook for machinists of machinery plants in two volumes] Spravochnik mekhanika mashinostroitel'nogo zavoda v dvukh tomakh. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry. Vol. 2. [The technology of repair work] Tekhnologiya remonta. Otv. red. toma IU. S. Borisov, 1958. 1059 p. (MIRA 11:10)

(Machinery--Maintenance and repair)  
(Machine-shop practice)



S/182/62/000/004/005/006  
D038/D113

AUTHOR: Lishanskiy, I.M.

TITLE: A portable machine for on the spot machining of heavy parts of forge-press equipment

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, no. 4, 1962, 39-40

TEXT: The portable machine, designed and operating at the Kirovskiy zavod (Kirov Plant), is used for machining anvil blocks of medium and large swaging and forging hammers. The machine consists of the following main parts: (1) an adjustable frame and (2) a carriage and cutter head. The particular feature of the machine consists in multi-directional machining and increased rigidity which is achieved through the use of an additional head made up of two guiding supports swivelling on a vertical plane. The machined surfaces of anvil blocks need no extra finishing since the two guiding rails, symmetrically placed in relation to the head, eliminate the vibration of the milling cutter. There is 1 figure.

Card 1/1

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

LISHANSKIY, I. S.

"Antibiotics of Burdock and Thistles" (US)

Priroda, No. 6, 1948

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

*CA*

Anhydrides of amine and guanidino derivatives of carbohydrate and polyatomic alcohols. I. 6-Amino, 6-dimethylaminino, and 6-guanidino derivatives of glucosamine. S. N. Danilov and I. S. Likhanskii. *Zhur. Obshch. Khim.* (J. Gen. Chem.) 21, 366-74 (1951).—Vigorous stirring of glucose and Me<sub>2</sub>CO (1:30 ratio) with 5% by wt. of H<sub>2</sub>SO<sub>4</sub>, 4-5 hrs., followed by stirring with Na<sub>2</sub>C<sub>2</sub>O<sub>4</sub> (240 g anhyd. salt/100 g. H<sub>2</sub>SO<sub>4</sub>), letting the mixt. stand 12-21 hrs., filtration, and evapn. *in vacuo* yields 65% diacetone-glucose, m. 111-12° (from petr. ether). This in 8 parts EtOAc is treated with HNO<sub>3</sub> (d. 1.3) (1 ml./100 ml. soln.) and heated on a steam bath 5 min., yielding 70% monoacetone-glucose, m. 161-2°; hydrolysis in 50% MeOH and H<sub>2</sub>SO<sub>4</sub> at room temp. is more laborious. Treatment with 1 mole *p*-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>Cl in CHCl<sub>3</sub>-pyridine and washing with H<sub>2</sub>O gives 55% of the  $\delta$ -aryl deriv., m. 106-7°. This is cooled to -20° in dry CHCl<sub>3</sub> and immediately upon initial crystn. is treated with 1 mole MeONa in dry MeOH and shaken 25 min., giving after treatment with cold H<sub>2</sub>O 50-55% 1,2-isopropylidene- $\beta$ , $\delta$ -dihydroglucosamine, m. 133-1° (from Et<sub>2</sub>O). Heating this with 8% dry NH<sub>3</sub> in dry MeOH 2 hrs. to 80°, after an initial 3 hrs. at 20°, and evapn. *in vacuo* gave 95% of probably 1,2-isopropylidene-di-deoxy- $\beta$ -amino-glucose, m. 60-5°, a very hygroscopic substance, yielding a carbonate

(C<sub>12</sub>H<sub>18</sub>O<sub>5</sub>N)<sub>2</sub>H<sub>2</sub>CO<sub>3</sub>, m. 90-5° (from EtOAc). Similarly Me<sub>2</sub>NH<sub>2</sub> in dry MeOH gave a syrup, yielding a carbonate, m. 131-4°, analizing (C<sub>12</sub>H<sub>20</sub>O<sub>5</sub>N)<sub>2</sub>H<sub>2</sub>CO<sub>3</sub>, apparently the *N*-Me-analog of the above. Several attempts to bring about reaction of guanidine with the anhydride failed, yielding neutral, *N*-free products. Addn. of 40 g. MeI to 20 g. thiourea in 20 ml. dry MeOH and heating 0.15 hr. at 40° gave *S*-methyl-thiourea-II, m. 117°. This added to the 6-amino deriv. (above) in H<sub>2</sub>O at 80° gave after 0.1 hrs., and treatment with BaCl<sub>2</sub> in pyridine, the tribenzoate of monoisopropylidene-guanidino-glucoside, with acyl groups on the *N*- and  $\beta$ - and  $\delta$ -positions; the product, m. 68-90° (from Me<sub>2</sub>CO), when 4 days are consumed in the benzylation. A 4-hr. reaction of 4 g. 6-amino deriv. and 4 g. thiourea deriv. at 80° in H<sub>2</sub>O, followed by evapn., thorough drying from Me<sub>2</sub>CO soln., and treatment with Ag<sub>2</sub>O, gave a hygroscopic 1,3-isopropylidene- $\beta$ -deoxy- $\beta$ -guanidino-glucosuronate, m. 110-15° (sealed tube); picrate, m. 148-9° (from dil. EtOH). If HNC(=NH)OMe is used in the prepn., the same product is obtained. The reagent is best prep'd. by triturating red Hg oxide under Et<sub>2</sub>O with thiourea with ice cooling, washing with Et<sub>2</sub>O to yield cyanamide, which is isolated by vacuum drying, is treated with dry MeOH contg. 1 mole dry HCl, and is cooled, after standing overnight; the HCl salt of *O*-methylthiourea crystallizes on chilling; the free base forms by addn. of MeONa to the salt in abs. MeOH. G. M. K.

1951

**I** with  $\text{Hg}(\text{ClOMe})\text{NH}_2$  gave only a trace of *guanidino- $\alpha$ -deoxy- $\beta$ -chloro- $\gamma$ -keten- $\delta$ -lactam*, m.p. 136-22°. Heated with  $\text{MeOH}-\text{MeSiV}$  in autoclave 35 hrs. at 160° gave 83%  *$\alpha$ -Me 2-deoxy-2-methylguanido- $\beta$ -keten- $\delta$ -lactonechloride*, m.p. 125-6°;  $\text{HCl}$  salt, m.p. 135-0°; *picrate*, m.p. 165-8°. Heating **I** with guanidine in pyridine contg. 5%  $\text{H}_2\text{O}$  10 hrs. at 100° gave a 35% yield of  *$\alpha$ -Me 2-deoxy-2-guanidino- $\beta$ -keten- $\delta$ -lactonechloride*, m.p. 144-7°; no reaction took place in  $\text{MeCO}_2$  while in  $\text{MeOH}$  soln. the latter added to **I**, yielding 2-Me 2-methyl-4,6-benzylidene- $\alpha$ -keto- $\beta$ -lactone. **I** heated with monoacetylguanidine also gave the same product. **I** and guanidine-HCl in dry  $\text{MeOH}$  after 60 hrs. at 140° gave  *$\alpha$ -Me 2-deoxy-2-chloro-4,6-benzylidene- $\beta$ -lactone*, m.p. 102°.

G. M. Kosolapoff

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

LISHANSKIG, I. S.

20610 LISHANSKIG, I. S. Sintez tsellyulozy kletkami asetovesteg khulinym. Priroda,  
1949, № 6, s. 55

SO: LETOPIS ZHURNAL STATEY - Vol. 28 - Moskva - 1949

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

LISHANSKY

I.S.

Anhydrides and amino and guanidine derivatives of carbohydrates and polyacids and polyalcohols. III. Amination and guanidination of carbohydrate acetols. S. N. Danilov and I. S. Lishansky (Inst. High Mol. Wt. Compds., Moscow), Zavod Uprughei Khim. 25, 2108-17 (1955); cf. C.A. 49, 8840c. Refluxing 20 hrs. 4.1 g. 1,2,5,6-tetra-*tert*-butylglucosurafarose with 100 ml. acq. guanidine concg. 1:18 70% 1,2,3,6-disopropylidene-*d*-glucosulfonate m. 110-11°; similar lack of guanidination was found in a *clvce* expts. at 140°. A similar result was obtained with 1,2,3,4-disopropylidene-*d*-tosylgalactose. Treatment of cellulose with 1.7 sulfonate groups per glucose unit, which did not even swell in org. solvents, gave products with up to 4.2% N and 12-14% S. Cellulose partially oxidized with HIO<sub>4</sub> reacted with NH<sub>3</sub>, rather readily, yielding products susceptible to wool dyes. Keeping 45 g. *o*-ide 4,6-benzylidene-glucoside with 115 g. *p*-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>Cl in 200 ml. dry pyridine 10 days gave upon treatment with ice and dil. HCl 94-8% (22.2 g.) in dry (CH<sub>2</sub>Cl)<sub>2</sub> was treated rapidly with 5.2 g. Na in 100 ml. dry MeOH and shaken 6 hrs. and allowed to stand 14 hrs.; after diln. with (CH<sub>2</sub>Cl)<sub>2</sub> and washing with H<sub>2</sub>O there was obtained 94% *o*-Me 2,3-anhydro-4,6-benzylidene-alloside (I), m. 199-200° (the use of theoretical amount of MeONa gives much unreacted material). This treated with MeOH-NH<sub>3</sub> 72 hrs. at 100° gave 91% *o*-Me 2-deoxy-2-amino-4,6-benzylidene-alloside (II), m. 103-9°; HCl salt, m. 129-30°. An apparent 3-amino isomer of this substance, m. 181-2°, was obtained from the mother liquor in sepn. of the 2-amino deriv. above. II with Ac<sub>2</sub>O-pyridine in 3 days gave the 2-acetamido analog, II with 181-2° (cf. Wigand, C.A. 41, 3434). II with HN(C(SMe)<sub>2</sub>)<sub>2</sub> caused only the decompr. of the latter. Treatment of

LISHANSKIY, I.S.

LEBEDEV, Sergey Vasil'yevich; YAKUBCHIK, A.I., red.; LISHANSKIY, I.S., red.  
izd-va; ARONS, R.A., tekhn.red.

[Selected works in organic chemistry] Izbrannye raboty po organicheskoi khimii. Red. A.I. Yakubchik. [Moskva] Izd-vo Akad. nauk SSSR, (MIRA 11:6)  
1958. 660 p.  
(Chemistry, Organic)

POZAMANTIR, A.G.; KOROTKOV, A.A.; LISHANSKIY, I.S.

Polymerisation of olefins by catalyst complexes. Part 1: Interaction of alkylaluminum chlorides and triethylaluminum with titanium tetrachloride. Vysokom. soed. 1 no.8:1207-1213 Ag '59. (MIRA-13:2)

1. Okhtinsky khimicheskiy kombinat i Institut vysokomolekul-yarnykh soyedineniy AN SSSR.  
(Olefins) (Aluminum organic compounds)  
(Titanium chloride)

5.3300

75691  
SOV/80-32-10-40/51

AUTHORS: Lishanskiy, I. S., Korotkov, A. A., Andreyeva, G. A.,  
Zak, A. G.

TITLE: Brief Communications. Concerning the Dehydration of  
n-Pentanol Over Aluminum Oxide

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 10,  
pp 2344-2346 (USSR)

ABSTRACT: Dehydration of aliphatic alcohols over  $\text{Al}_2\text{O}_3$  leads to  
the formation of isomeric olefins. Dehydration of n-pen-  
tanol can give 5 possible isomeric pentenes with a boil-  
ing range between 20 and 38°. Isolation of pentene-1  
is very difficult. Attempts were made to prepare pentene-1  
by dehydration of n-pentanol accompanied by the least iso-  
merization. Two catalysts were used: a catalyst which  
was used for the dehydration of isopropyl alcohol at  
360° and afterwards regenerated with air at 450° for  
2 hr, and a freshly prepared catalyst. The activity of  
both catalysts was the same with respect to the total  
hydrocarbon yield. Pentene-1 content in the mixture

Card 1/2

Brief Communications. Concerning the  
Dehydration of n-Pentanol Over Aluminum  
Oxide.

75691  
SOV/80-32-10-40/51

of pentenes changes with the amount of alcohol passed over the catalyst, and has a maximum 39.2% (minimum 7.5%). The observed phenomenon may be explained by assuming the existence on alumina of active centers of different spatial specificity. Chromatographic analysis was done by Dement'yeva, M. I., in the laboratory LenNII. There is 1 figure; 1 table; and 4 references, 2 Soviet, 2 U.S. The 2 U.S. references are: Oblad and others, Ind. Eng. Ch., 39, 1462 (1947); Pines, H., Haad, W., J. Org. Chem., 23, 2, 328 (1958).

ASSOCIATION: Institute of High-Molecular Compounds, Academy of Sciences USSR (Institut vysokomolekulyarnykh sojedineniy AN SSSR)

SUBMITTED: January 29, 1959

Card 2/2

5.3300

78291  
SOV/79-30-3-45/69

AUTHORS:

Korotkov, A. A., Lishanskiy, I. S., Fedorov, Ye. F.

TITLE:

Synthesis of 2-Octylbuta-1,3-diene Using Organomagnesium Compounds

PERIODICAL:

Zhurnal obshchey khimii, 1960, Vol 30, Nr 3,  
pp. 960-962 (USSR)

ABSTRACT:

Preparation of 2-octylbuta-1,3-diene (III) by W. H. Carothers' method (W. H. Carothers, G. J. Berchet, J. Am. Chem. Soc., 55, 2813, (1933)) and reaction between 4-chlorobuta-1,2-diene (I) and octylmagnesium bromide (II) was studied. From a mixture obtained by the reaction of equimolar ether solutions of I and II, the following three fractions were separated. The first fraction: bp 28-30° (50 mm),  $n_{D}^{20}$  1.4380,  $d_4^{20}$  0.8438, colorless volatile liquid; apparently, it is  $\text{CH}_2=\text{CH}-\text{CH}_2-\text{CH}_2-\text{CH}=\text{C}-\text{CH}_2$ . The second fraction: bp 70-77° (5 mm),  $n_{D}^{20}$  1.4522 (first run) and 1.4530 (last run),  $d_4^{20}$  0.8924; this is 2-octylbuta-1,3-diene, obtained

Card 1/2

Synthesis of 2-Octylbuta-1,3-diene Using  
Organomagnesium Compounds

78291

SOV/79-30-3-45/69

for the first time and characterized by its adduct with maleic anhydride. The third fraction; bp 109-110° (1.5 mm), hexadecane bp 110° (1 mm). The authors suggested that the reaction between I and II proceeds through the formation of an unstable intermediate complex, which rearranges into a stable cyclic complex. Decomposition of the latter leads to the formation of 4-alkylbuta-1,2-diene or 2-alkylbuta-1,3-diene. There are the following 4 U.S. references: W. H. Carothers, G. I. Berchet, J. Am. Chem. Soc., 55, 2813 (1933); W. H. Carothers, G. I. Berchet, J. Am. Chem. Soc., 55, 2807 (1933); J. H. Wotiz, J. S. Matthews, J. Am. Chem. Soc., 74, 2559 (1952); R. C. Fuson, H. D. Porter, J. Am. Chem. Soc., 70, 895 (1948).

ASSOCIATION: Institute of High Molecular Weight Compounds, Academy of Sciences USSR (Institut vysokomolekularnykh soyedineniy Akademii nauk SSSR)

SUBMITTED: April 7, 1959  
Card 2/2

KOBOTKOV, A.A.; LISHANSKIY, I.S.; SEMENNOVA, L.S.

Catalytic polymerization of olefins. Part 2: Effect of adding  
electron donors on the polymerization of 1-pentene with the aid  
of complex catalysts. Vysokom. soed. 1 no.12:1821-1823 D '60.  
(MIRA 13:5)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.  
(Pentene) (Catalysts)

158060

30907  
S/190/61/003/012/001/012  
B101/B110

AUTHORS: Pozamantir, A. G., Korotkov, A. A., Lishanskiy, I. S.

TITLE: Catalytic polymerization of olefins. III. Effect of the composition of the Ziegler catalyst on the molecular weight of polyethylene

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 12, 1961,  
1769 - 1773

TEXT: The authors discuss various publications on the relationship between the composition of the Ziegler catalyst and the molecular weight of the polymer. In a former paper (Ref. 6: A. G. Pozamantir, Vysokomolek. soyed., 2, 1026, 1960), it was shown that some halogen derivatives of hydrocarbons and  $\text{SnCl}_4$  tear off the reaction chain and decrease the molecular weight of polyethylene. In the present study, it was investigated whether  $\text{TiCl}_4$  had a similar effect as  $\text{SnCl}_4$ . The dependence of the molecular weight on the composition of the catalysts on the basis of aluminum alkyls,  $\text{TiCl}_3$ , and  $\text{TiCl}_4$ , was investigated experimentally. The

Card 1/4

Catalytic polymerization of...

30907  
S/190/61/003/012/001/012  
B101/B110

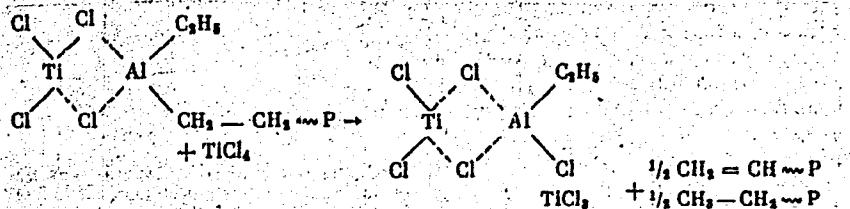
synthesis of organoaluminum compounds had been described earlier (Vysokomolek. soyed., 1, 1207, 1959). Polymerization of  $C_2H_4$  was achieved, according to Ref. 6, at  $50^{\circ}C$ . The concentration of  $TiCl_4$  was  $4.4 \cdot 10^{-3}$  moles/liter; that of  $TiCl_3$ ,  $8.2 \cdot 10^{-3}$  moles/liter. At first  $TiCl_3$ , later the aluminum alkyl, were added to the reaction mixture. In the tests with  $TiCl_4$ , this compound was added last. The intrinsic viscosity of the polymer was determined in decalin at  $135^{\circ}C$ . Polymerization of  $C_2H_4$  by means of catalysts on the basis of  $(C_2H_5)_3Al$ ;  $(C_2H_5)_2AlCl$ ; or  $C_2H_5AlCl_2$ , and  $TiCl_3$ ,  $TiCl_4$ , led to the results indicated in Fig. 1. Experiments in which  $TiCl_4$  was added in increasing amounts to an aluminum alkyl +  $TiCl_3$  catalyst resulted in decreasing molecular weight with increasing ratio  $TiCl_4/TiCl_3$ . The following conclusions were drawn: (1) The molecular weight of the polymer depends on the concentration of  $TiCl_4$  which did not react. The concentration of  $TiCl_4$  depends on the reactivity of the

Card 2/4

30907  
S/190/61/003/012/001/012  
B101/B110

Catalytic polymerization of...

aluminum alkyl and on the ratio Al/Ti. (2)  $TiCl_4$  tears off the reaction chain. The growing chain of the polymer is expelled from the active center by a chlorine atom of  $TiCl_4$



A study by Ye. P. Tepenitsina, M. I. Farberov et al. (Vysokomolek. soyed., 1, 1148, 1959) is mentioned. There are 2 figures and 13 references: 3 Soviet and 10 non-Soviet. The four most recent references to English-language publications read as follows: N. G. Gaylord, H. F. Mark, Linear and Stereoregular Addition Polymers, Intersci. Publ. Inc., N. Y., 1959, p. 122; R. van Helden, A. F. Bickel, E. C. Kooyman, Tetrahedron Letters, 12, 18, 1959; L. Rodriguez, J. Gabant, B. Margitay, Tetrahedron Letters, 17, 7, 1959; K. Ziegler, H. Martin, J. Stedefeder, Tetrahedron Letters, Card 3/4

30907  
 S/190/61/003/012/001/012  
 B101/B110

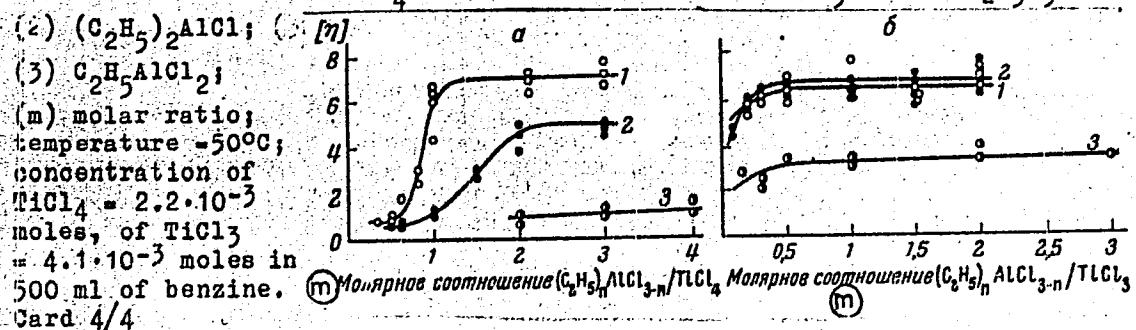
Catalytic polymerization of...

20, 12, 1959.

ASSOCIATION: Okhtinskiy khimicheskiy kombinat (Okhta Chemical Combine).  
 Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute  
 of High-molecular Compounds AS USSR)

SUBMITTED: December 23, 1960

Fig. 1. Dependence of the molecular weight of polyethylene on ratio:  
 (a) aluminum alkyl :  $TiCl_4$ ; (b) aluminum alkyl :  $TiCl_3$ . (1)  $(C_2H_5)_3Al$ ;



Card 4/4

POZAMANTIR, A.G.; KOROTKOV, A.A.; LISHANSKIY, I.S.

Catalytic polymerization of olefins. Part 3: Effect of the Ziegler catalyst composition on the molecular weight of polyethylene.  
Vysokom.soed. 3 no.12:1769-1773 D '61. (MIRA 15:3)

1. Okhtinskiy khimicheskiy kombinat i Institut vysokomolekulyarnykh soyedineniy AN SSSR.  
(Polyethylene) (Catalysts)

ACCESSION Nr. AP4022958

8/0020/64/155/001/0136/0138

AUTHOR: Korotkov, A. A. (Corresponding member); Lishanskiy, I. S.; Zak, A. G.

TITLE: Polymerization of pentene-1 in the presence of isoprene on a complex catalyst

SOURCE: AN SSSR. Doklady\*, v. 155, no. 1, 1964, 136-138

TOPIC TAGS: polymerization, Ziegler catalyst, pentene 1, isoprene, polyisoprene, polypentene, refractive index, chain termination, pentene isoprene, homopolymer mixture, copolymerization, catalyst component ratio, catalyst active center

ABSTRACT: The copolymerization of olefins with dienes, specifically of pentene-1 with isoprene, with a Ziegler catalyst was investigated. The catalyst was prepared by the interaction of various amounts of  $TiCl_4$  with Al(iso-butyl) to form products with Al:Ti ratios from 1.0:1.0 to 2.0:1.0. With almost equal proportions of Al and Ti, isoprene polymerizes in high yield (about 90%) to form high molecular cis-1,4-polyisoprene; with Al:Ti = 2:1, the yield drops to 1.5%. The yield of pentene-1 polymer is low (5.5-11.5%) regardless of the catalyst component ratio. (In polymerizing a mixture of monomers with Al:Ti = 1:1, the product polymer (a mixture of homopolymers) contains 83% isoprene; the yield and viscosity are lower  
card 178)

ACCESSION NR: AP4022958

than for isoprene alone. The Al:Ti=1:1 catalyst is described as apparently having two types of active centers, one specific for isoprene and the second for pentene-1. When the Al component ratio is higher, the second type of active center is apparently completely disintegrated while the first is only partially disintegrated. A third type of active center, specific for pentene-1 is formed simultaneously, but is almost completely blocked because of strong adsorption of isoprene. Therefore polymerization of pentene-1 is almost impossible even with Al:Ti = 1.8:1 to 2:1. When isoprene is polymerized in the presence of pentene-1, isoprene chain termination is effected with an Al:Ti ratio above 1.2:1. The refractive indices of films of the polymers and copolymerization products were found additive, with  $n_{D}^{20}$  of polypentene = 1.4800 and of polyisoprene = 1.5218. (fig.) Orig. art. has: 1 figure and 3 tables.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute of high-molecular compounds, AN SSSR)

SUBMITTED: 20Sep64

DATE ACQ: 08Apr64

ENCL: 01

SUB CODE: CH

NO.RMF. SOV: 003

OTHER: 004

Card 2/82

LISHANSKIY, I.S.; ZAK, A.G.; D'YAKONOV, I.A.; ALIYEVA, T.G.

Synthesis of ethyl ester of 2-vinylcyclopropane carboxylic acid.  
Zhur. org. khim. 1 no.7:1189-1193 Jl '65.

(MIRA 18:11)

I. Institut vysokomolekulyarnykh soyedineniy AN SSSR i Leningrad-skiy gosudarstvennyy universitet.

L 11595-66 EWI(m)/EWP(j)/T RM

ACC NR: AP6000352

SOURCE CODE: UR/0286/65/000/021/0017/0017

44,55

44,55

34

AUTHORS: Lishanskiy, I. S.; Tsitokhtsev, V. A.

B

ORG: none

TITLE: Method for obtaining polymers with substituted cyclopropane groups. Class 39, No. 176065 announced by Institute for High-Molecular Compounds, AN SSSR (Institut vysokomolekulyarnykh soedinenii, AN SSSR)

44,55

SOURCE: Byulleten' izobreteniya i tovarnykh znakov, no. 21, 1965, 47

TOPIC TAGS: polymer, polymerization, substitution reaction, cyclopropane, carbon compound, alkyl, aryl

ABSTRACT: This Author Certificate presents a method for obtaining polymers with substituted cyclopropane groups either in main or side chains. The unsaturated conjugated diene polymers are treated with compounds of divalent carbon in an inert organic solvent. The divalent carbon compounds have the general formula

$\begin{array}{c} X \\ | \\ C \\ \backslash \\ Y \end{array}$ , where X is a halogen or hydrogen atom, or an alkyl or aryl group, and Y is a halogen or hydrogen atom, or an alkyl, aryl, cyano, or an esterified carboxyl group.

SUB CODE: 11/ SUBM DATE: 25Dec61

UDC: 678.762-952

Card 1/1 H(0)

L 61051-65 ESR(m)/EPR(c)/EMP(I)/T Pcsd/Prnt RM  
ACCESSION NO.: AP5016499

IR/0190/65/007/006/0966/0971  
66.095,26+78.71

AUTHORS: Ishanskiy, I. S.; Zak, A. G.; Fedorova, Ye. F.; Khachaturov, A. S.

TITLE: Polymerization of vinylcyclopropane derivatives with polar ring substituents

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 6, 1965, 966-971

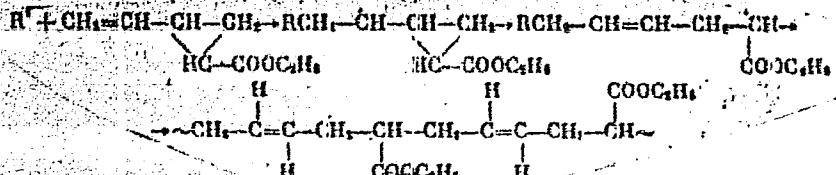
TOPIC TAGS: polymer, resin, vinylcyclopropane, IR spectroscopy, NMR spectroscopy, complex catalyst, free radical

ABSTRACT: The investigation was undertaken in order to extend and draw attention to the work of T. Takahashi, J. Jamashita, and T. Mijakawa (Bull. Chem. Soc. Japan, 33, 131, 1964). The results of the present investigation are only in partial agreement with those of the above reference. The polymerization of ethyl 2-vinylcyclopropane carboxylate (I) and 1, 1-dichloro-2-vinylcyclopropane (II) in the presence of radical and complex catalysts was investigated. From IR and NMR spectra of the polymers it is concluded that the mechanism for the polymerization of I is

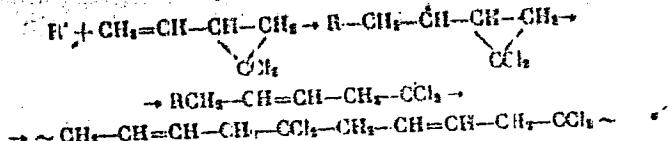
Card 1/3

L-61051-35

ACCESSION NR: AP5016499



and of II is



In both cases polymerization occurs in the 1, 5 position with ring opening. It is shown that complex catalysts  $AlP_3 - VCl_3$  - tetrahydrofuran also lead to polymerization in the 1, 5 position, whereas similar catalysts in the absence of complexing agents lead to polymerization, similar to anionic catalysts, in the 1, 2 position as well as in the 1, 5 position. Orig. art. has: 1 table and 2 illustrations.

Card 2/3

1. 61051-55

ACCESSION NR: AP5016499

ASSOCIATION: Institut vysokomolekulyarnykh soedineniy, AN SSSR (Institute for  
high-Molecular Compounds, AN SSSR)

SUBMITTED: 22Jun64

ENCL: 00

SUB CODE: CC, GC

NO REF SOV: 002

OTHER: 010

Card 3/3

LISHANSKIY, Mark L'vovich; POGREBNYAK, Aleksandr Dmitriyevich;  
TATINTSYAN, Sarkis Vartanovich, nauchn. sotr.; LAPIDUS,  
M.A., red.

[Guaranteed wages and business accounting on a collective  
farm] Garantirovannaya oplata i khozraschet v kolkhoze.  
Moskva, Kolos, 1965. 85 p. (MIRA 18:6)

1. Nachal'nik finansovogo otdela Ministerstva proizvodstva  
i zagotovok sel'skokhozyaystvennykh produktov Dagestanskoy  
ASSR (for Lishanskiy). 2. Dagestanskiy nauchno-issledova-  
tel'skiy institut sel'skogo khozyaystva (for Tatintsyany).

PA 7/49T38

USCR/Communications

Aug 48

Telegraph Equipment

"L. S. Shlyapintokh's Book 'The Bodo Telegraph Apparatus,'" K. P. Lishay, Engr, 1 p

"Vest Svyazi - Elektrosvyaz!" No 8 (101)

Book should fulfill two basic requirements: (1) description of principle, construction and operation of the apparatus, and (2) account of special features of each set for benefit of operators. Author succeeds in the first; treatment of second is not sufficiently thorough. Published by Svyaz' Izdat, Moscow, 1948, 91 pp, price 2 rubles, 50 kopeck.

7/49T38

LISHAY, K. P.

COMMUNICATION

"Procedure for Measuring Telegraph Distortions," by K. P. Lishay, Elektrosvyaz', No 7, July 1957, pp 63-67

Methods are considered for a practical determination of the location of the ideal instant of restitution, as well as methods for determining and measuring the various types of telegraph errors.

Card 1/1

- 19 -

VASIL'YEV, S.A.; GUROV, V.S.; DAVYDOV, G.B.; ZARIN, S.A.; ZAYONCHKOVSKIY, Ye.A.; IL'INA, L.D.; KIRILLOV, Ye.V.; LISHAY, K.P.; MILEVSKIY, Yu.S.; MIXHAYLOV, M.I.; NIKOL'SKIY, K.K.; PUKHAL'SKIY, A.Ch.; PUKHAL'SKAYA, N.N.; RABINOVICH, M.B.; SEVEDSKIY, S.A.; KONDRA-SHINA, N.M., red.; KARABILOVA, S.F., tekhn.red.

[Recommendations of international consultative committees on telephony and telegraphy] Rekomendatsii mezhdunarodnykh konsul'-tativnykh komitetov po telefonii i telegrafii. Moskva, Gos.izd-vo lit-ry po voprosam svyazi i radio, 1959. 335 p. (MIRA 13:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut svyazi Ministerstva svyazi SSSR (for all except Kondrashina, Karabilova).  
(Telephone) (Telegraph)

LISHAY, K.P., starshiy inzh.

Methodology for measuring teletype distortions. Vest. sviazi  
22 no.3:8 Mr '62. (MIRA 15:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut svyazi.  
(Teletype)

AKOL'ZIN, L.Ye.; LISHBEEGOV, V.D.; SHCHUKINA, G.F.; TSOY, D.; DUGIN,  
Ye.V., stv.red.; DUKALOV, M.F., red.; BUBIR', V.A., red.; TIUTYUNIK,  
Ya.I., red.; MOHIN, M.I., red.; PANCHENKO, A.I., red.; VARSHAVSKIY,  
I.N., red.; BELYAYEV, F.R., red.; RABINKOVA, L.K., red.izd-va;  
KOROVENKOVA, Z.A., tekhn.red.

[Standard cross sections of mine workings] Tipovye secheniya gornykh  
vyrabotok. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu.  
Vol.1. [Cross section of timber-supported workings for 1, 2, and  
3-ton cars] Secheniya vyrabotok, zakreplennykh derevom dlja 1, 2  
i 3-tonnykh wagonetok. 1960. 345 p. (MIRA 13:11)

1. Moscow. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht.  
(Mining engineering)

AKOL'ZIN, L.Ye.; BEDILO, V.Ye.; BOROZDOV, I.A.; LISHBERGOV, V.D.; TSOY, D.;  
DUGIN, Ye.V., otv.red.; DUKALOV, M.P., red.; BUBIR', V.A., red.;  
TYUTYUNIK, Ya.I., red.; MONIN, M.I., red.; PANCHENKO, A.I., red.;  
BELYAYEV, F.R., red.; RABINKOVA, L.K., red.izd-va; KOROVENKOVA,  
Z.A., \*tekhn.red.

[Standard cross sections of mine workings] Tipovye secheniya  
gornykh vyrabotok. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po  
gornomu delu. Vol.3. [Cross section of workings lined with  
concrete and artificial stone for 2 and 3-ton cars] Secheniya vy-  
rabotok, zakreplennykh betonom i iskusstvennym kammem, dlia 2- i  
3-tonnykh vagonetok. 1960. 447 p. (MIRA 13:11)

1. Moscow. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht.  
(Mining engineering)

BEDILO, V.Ye.; KALINCHUK, I.G.; LISBERGOV, V.D.; NIKOLAYEV, G.P.; TSOY, D.;  
SECHUKINA, G.F. Prinimeli uchastiye: KOLESNIKOV, V.F.; OSTAPERKO,  
P.V.; SEDOVA, M.P.; TKACHEV, M.V. DUGIN, Ye.V., otv.red.;  
RABINKOVA, L.K., red.izd-va; KOROVENKOVA, Z.A., tekhn.red.; SABITOV, A.,  
tekhn.red.

[Types of mine cross section] Tipovye secheniya gornykh vyrabotok.  
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu. Vol.6.

[Cross section of mines lined with steel arches and anchor bolting  
for 1-, 2- and 3-ton railroad cars] Secheniya vyrabotok, zakreplennykh  
stal'noi arochnoi i shtangovoi krep'iu, dlis 1-, 2- i 3-tonnykh  
vagonetok. 1960. 503 p. (MIRA 13:12)

1. Khar'kov. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht.  
(Mine timbering)

AKOL'ZIN, L.Ye.; BEDILO, V.Ye.; BOROZDOV, I.A.; VINARSKIY, I.S.;  
GOLOVATYUK, S.A.; NIKOLAYEV, G.P. Prinimali uchastiye:  
DATSUN, N.V.; ZHEZGOV, V.T.; IVANITSKAYA, S.Yu.; KOMISSAROV,  
M.A.; KALINCHUK, I.G.; LISHBERGOV, V.D.; SEREBRENKOVA, S.O.;  
FILIN, V.D. DUGIN, Ye.V., otv.red.; DUKALOV, M.F., red.;  
BUBYR', V.A., red.; TYUTYUNIK, Ya.I., red.; VARSHAVSKIY, I.N.,  
red.; MONIN, M.I., red.; PANCHENKO, A.I., red.; BELYAYEV, F.R.,  
red.; RABINKOVA, L.K., red.izd-va; BOLDYREVA, Z.L., tekhn.red.

[Types of mine cross section] Tipovye secheniya gornykh vyrabotok. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu.  
Vol.5. [Cross section of mines with reinforced-concrete supports  
and hinge-hung crossbars for 1-, 2- and 3-ton railroad cars]  
Secheniya vyrabotok, zakreplennykh zhelezobetonnymi stoikami  
s sharnirno-podvesnym vekhniakom, dlia 1-, 2- i 3-tonnykh  
vagonetok. 1960. 411 p. (MIRA 13:12)

1. Khar'kov. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht.  
(Mine timbering)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

LISHBERG, Ye.

LISHBERG, Ye., shofer.

Preventing accidents. Avt. transp. 36 no.1:30 Ja '58. (MIRA 11:1)  
(Automobiles--Safety measures)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

LISHCHENKO, A. I.

"Investigation of the Resynchronization of Synchronous Pump Motors." Cand Tech Sci,  
Chair of Electrical Machines, Kiev Polytechnic Inst, Min Higher Education, Kiev,  
1954. (KL, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational  
Institutions (12)

SO: SUM No. 556, 24 Jun 55

8(5)

AUTHORS:

Postnikov, I. M., Doctor of Technical Sciences, Professor; Lishchenko, A. I., Candidate of Technical Sciences (Kiev) SOV/105-59-7-2/30

TITLE:

On the Calculation of the Characteristics and the Overloading Capacity of Compounded Synchronous Motors (O raschete kharakteristik i peregruzhayemosti kompoundirovannykh sinkhronnykh dvigateley).

PERIODICAL:

Elektrичество, 1959, Nr 7, pp 8 - 13 (USSR)

ABSTRACT:

The results obtained by an experimental investigation and precise description of the methods of calculating the characteristics and overloading capacity of compound motors, which have already been dealt with by other papers (Refs 1,2) are discussed. The experiments were carried out on a motor of the ASDK-type having a power output of 40 kw, 380 v, and 1000 rotations per minute. The process of calculating the excitation system and the characteristics of the motor is described. Analytical and graphical methods of developing operational characteristics, and, finally, experimental and calculated results are compared. This comparison shows the satisfactory results are obtained by the calculation method described. The experiments carried out with synchronized

Card 1/2

On the Calculation of the Characteristics and the Overloading Capacity of Compounded Synchronous Motors

SOV/105-59-7-2/30  
asynchronous motors showed it to be of advantage to use them both in the case of direct and indirect compounding, especially in such cases in which an increase of  $\cos \phi$  of the devices without using any special means of compensation is desired. There are 4 figures and 3 Soviet references.

SUBMITTED: January 3, 1959

Card 2/2

LISHCHENKO, Anatoliy Ivanovich, kand.tekhn.nauk

Choke excitation network of a compound synchronous motor.  
Izv. vys. ucheb. zav.; elektromekh. 4 no.11:109-111 '61.

(MIRA 14:12)

1. Uspolnyayushchiy obyazannosti dotsent kafedry elektricheskikh  
mashin Kiyevskogo politekhnicheskogo instituta.  
(Electric motors, Synchronous)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

LISHCHENKO, A.I. (Kiyev)

Compounded synchronous motor with reactor excitation. Elektrichestvo  
no.4:23-27 Ap '63. (MIRA 16:5)  
(Electric motors, Synchronous)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

USSR / Cultivated Plants. Grains.

M-3

Abs Jour: Ref Zhur-Biol., 1958, No 16, 72923.

Author : Lishchenko, F. I.

Inst : Belorussian Agricultural Academy.

Title : Several Features in Corn Agrotechny in the North-eastern Part of the Belorussian SSR.

Orig Pub: Tr. Belorussk. s.-kh. akad., 1957, 23, No 2, 33-50.

Abstract: One year's results are cited of field experiments and observations on problems of agricultural engineering of "Moldavskaya" and "Krasnodarskaya 1/49" corn: planting periods, hillling and suckering and areas of feeding. Approximate periods of planting for southern Belorussian SSR are May 15-20, for the middle belt May 20-25 and for the northern rayons

Card 1/2

39

LEUTSKIY, K.M., prof., otv. red.; KALYUZHNYY, I.F., dots., red.;  
LISHCHENKO, N.A., dots., red.; BYKOVA, O.Ye., kand. filol.  
nauk, red.; GOROKHOVA, Z.N., dots., red.; TOKMAKOV, A.I.,  
dots., red.; DOMBROVSKIY, A.V., dots., red.; BELYAYEV, N.G.,  
dots., red.; LYUBOPYTNOVA, V.S., dots., red.; MUZYCHKO, G.I.,  
tekhn. red.

[Science yearbooks for 1957] Nauchnyi ezhegodnik za 1957 god.  
Chernovtsy, Chernovitskii gos. univ., 1958. 522 p.

(MIRA 16:10)

1. Czernowitz. Universytet. 2. Rektor Chernovitskogo gosu-  
darstvennogo universiteta (for Leutskiy).

(Science--Yearbooks)

(Social sciences--Yearbooks)

KOGOM, G.Kh., ordinotor, LISHCHENKO, N.V.

Arthropathic psoriasis with concurrent nearthrosis. Vest.derm.  
(MIRA 11:7)  
i ven. 32 no.3:79-81 My-Je '58

1. Iz Dnepropetrovskoy oblastnoy klinicheskoy bol'nitay imeni  
Mechnikova.  
(PSORIASIS)  
(JOINTS--DISEASES)

KOGONI, G. Kh., LISHCHENKO, N.V.

Latent arthropathies in psoriasis. Vest.derm. i ven. 32 no.5:  
71 S-0 '58 (MIRA 11:11)

1. Iz kozhno-venerologicheskogo otdeleniya Dnepropetrovskoy  
oblastnoy klinicheskoy bol'nitsy imeni. Mechanikova.  
(PSORIASIS)  
(ARTHRITIS)

LISHCHENKO 0-57.

BATOZSKAIA, E. A., LISHCHENKO, P. S., NOVIKOV, M. I., POLTAVSKI, I. L.,  
BRIAZKUN, G. F., PRIKHOD'KO, P. G., NIKITIN, V. N.

Decisive role of outer media and functional state of the organism  
in ontogenesis of the blood plasma in horses. Zh. obsh. biol.  
11:3, May-June 50. p. 198-202

1. Khar'kov Zootechnical Institute and Khar'kov State University.

CLML 19, 5, Nov., 1950

LISHCHENKO, S. I., Candidate Tech Sci (diss) -- "The effect of the dimensions of pressure wells on the operating conditions of multi-stage transmission". Odessa, 1959. 16 pp (Min Higher Educ Ukr SSR, Odessa Construction Engineering Inst), 150 copies (KL, No 25, 1959, 134)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1

"Trilon B in the Ion Exchange Separation of Less Common Rare Earth Elements."

Rare Earth Elements (Extraction, Analysis, Use), Published by the Institute of  
Geochemistry and Analytical Chemistry Imeni V. I. Vernadskiy, 1958, Moscow.

(Giredmet - State Rare Metals Scientific Research Institute and Moscow Agricultural  
Academy Im. K. A. Timiryazev), p. 100-107.

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930110006-1"

L 1210-65 T.T.(n)/P.W.(b) JD/JG

ACCESSION NR: AP4048364

S/0032/64/030/011/1339/1343

AUTHOR: Melamed, Sh. G.; Kostyukov, A. S.; Lishchenko, T. V.

TITLE: Spectrochemical determination of rare-earth impurities in rare-earth oxides

SOURCE: Zavodskaya laboratoriya, v. 30, no. 11, 1964, 1339-1343

TOPIC TAGS: rare earth oxide; yttrium oxide, neodymium oxide, praseodymium oxide, lanthanum oxide, rare earth oxide analysis, spectrochemical analysis, rare earth impurity determination, impurity concentration, ion exchange chromatographic concentration

ABSTRACT: A combined chemical and spectroscopic method has been developed for analyzing rare-earth impurities in high-purity yttrium, neodymium, praseodymium, and lanthanum oxides. The impurities concentration technique—a preliminary step to their spectroscopic determination—was perfected to increase the sensitivity of the spectroscopic analysis. Chromatographic ion exchange in a column packed with KT-2 cationic resin was described for concentrating Ho, Dy, Tb, and Gd in yttrium oxide; Sm, Pr, Ce, and La in neodymium oxide; Nd, Ce, and La in praseodymium oxide; and Nd, Pr, and Ce in lanthanum

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L 12410-65

ACCESSION NR: AP4048364

oxide. Sorption of the rare-earth elements was effected from solutions containing rare-earth chlorides, and the elution of rare-earth impurities with a solution of complexone. Rare-earth complex compounds in each fraction of eluate were decomposed with oxalic acid and rare-earth oxalate precipitate converted to oxides, which were analyzed spectroscopically for impurities. Additions of coprecipitating impurities, either inactive or radioactive (isotopes), were necessary in the cases of fractions with impurity content below the sensitivity limit ( $10^{-3}$ — $10^{-1}\%$ ) of direct spectroscopic analysis. The increase in sensitivity measured by the maximum enrichment factor was 10—250, depending on impurity and base material. The recovery of rare-earth impurities determined from the total  $\gamma$ -radioactivity in the eluate was in the 90—104% range. The ion-exchange method of separating rare-earth impurities can be employed for concentrating as low as  $10^{-4}$ — $10^{-3}\%$  impurities. Spectroscopic analysis for one element may be limited to one eluate fraction only, if radioactive tracers are introduced into the original solution before sorption. The formula for calculating the content of an element in the sample is given. The spectral excitation source was a d-c arc between carbon electrodes. The spectra were produced on a DFS-3 spectrophotograph with diffraction grating and were recorded photographically. Analytical pairs of spectral lines and the formula for calculating impurity concentration in the sample are given.

Orig. art. has. 3 figures, 3 tables, and 2 formulas.

Card 2/3

I. 12410-65

ACCESSION NR: AP4048364

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'sky i proektnyy institut  
redkometallicheskoy promyshlennosti (State Design and Planning Scientific Re-  
search Institute of the Rare Metals Industry)

SUBMITTED: 00

ENCL: 00

SUB CODE: GC

NO REF SOV: 001

OTHER: 003

ATT PRESS: 3126

Card 3/3